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DEC 17 2003

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V, SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0086-04

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Mr. Bill Kurey
United States Fish & Wildlife Service, Suite H
6950 American Parkway
Reynoldsburg, OH 43068

Dear Mr. Saric, Mr. Schneider, and Mr. Kurey:

TRANSMITTAL OF THE FINAL WETLAND MITIGATION PHASE II NATURAL RESOURCE DESIGN PLAN, AND RESPONSES TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AND OHIO ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS ON THE DRAFT WETLAND MITIGATION PROJECT PHASE II NATURAL RESOURCE DESIGN PLAN

References: 1) Letter from G. Griffiths to J. Saric, T. Schneider and B. Kurey, "Draft Wetland Mitigation Project Phase II Natural Resource Restoration Design Plan," dated September 2, 2003

2) Letter from J. Saric to J. Reising, "Wetland Mitigation Phase II," dated October 16, 2003

3) Letter from T. Schneider to G. Griffiths, "Draft Wetland Mitigation Project Phase II NRRDP," dated October 22, 2003

Enclosed for your approval is the Final Natural Resource Restoration Design Plan (NRRDP) for the Wetland Mitigation Phase II Project located in Area 6, Phase I. A Response to Comment (RTC) document addressing both the United States Environmental Protection

Agency and the Ohio Environmental Protection Agency (OEPA) comments referenced above is also enclosed. The NRRDP has been revised based on the RTC document and is being provided for your review and approval.

Please contact Johnny Reising at (513) 648-3139 with any questions regarding this matter.

Sincerely,

William J. Taylor
Director

FCP:Reising

Enclosures: As Stated

cc w/enclosures:
J. Jalovec, OH/FCP
D. Pfister, OH/FCP
J. Reising, OH/FCP
G. Stegner, OH/FCP
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RESPONSES TO U.S. AND OHIO ENVIRONMENTAL PROTECTION AGENCIES TECHNICAL REVIEW COMMENTS ON THE WETLAND MITIGATION PROJECT PHASE II NATURAL RESOURCE RESTORATION DESIGN PLAN (FINAL, REV. O)

FERNALD CLOSURE PROJECT
FERNALD, OHIO

DECEMBER 2003

U.S. DEPARTMENT OF ENERGY

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RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS ON WETLAND MITIGATION PROJECT PHASE II NATURAL RESOURCE RESTORATION DESIGN PLAN (Draft, Rev. B)

GENERAL COMMENTS

1. Commenting Organization: U.S. EPA Commentor: Saric
   Section #: Not applicable (NA) Pg.#: NA Line #: NA Code:
   Original General Comment #: 1
   Comment: None of the figures in the plan clearly show the location of the Northern Woodlot. The boundaries of the Northern Woodlot in Area 6, Phase I should be included in Figure 2-1.
   Response: Agree.
   Action: The Northern Woodlot will be clearly labeled on Figure 2-1

2. Commenting Organization: U.S. EPA Commentor: Saric
   Section #: NA Pg.#: NA Line #: NA Code:
   Original General Comment #: 2
   Comment: The boundaries of the mitigation area in Area 1, Phase III should be shown on the soil map in Appendix A so that it is possible to determine which soils are present in the mitigation area.
   Response: Agree.
   Action: The boundary of the mitigation area will be added to the soil map in Appendix A.

3. Commenting Organization: U.S. EPA Commentor: Saric
   Section #: NA Pg.#: NA Line #: NA Code:
   Original General Comment #: 3
   Comment: It is not possible to determine whether the proposed community type for the mitigation pools shown in Figures 3-1 and 3-2 is open-water aquatic, shallow marsh, or wet prairie. The figures should be revised to clearly present this information. In addition, the text of the plan should be revised to discuss the proposed water levels for the pools and the amount of water level fluctuation.
   Response: All of the mitigation pools have been designed as shallow marsh with Ponds 1 and 3 each containing a very small area of open-water aquatic. The normal water levels in the pools will be approximately 2 feet in depth or less. The normal water levels for Pond 1 will be approximately 573 feet msl, Pond 2 will be 582 feet msl, and Pond 3 will be 583 feet msl. Obviously, water elevations will fluctuate throughout the year depending on rainfall.
   Action: The community types will be added to Figures 3-1 and 3-2 and to the text of the design. Proposed water levels will also be added to the text of the design.

4. Commenting Organization: U.S. EPA Commentor: Saric
   Section #: NA Pg.#: NA Line #: NA Code:
   Original General Comment #: 4
   Comment: According to the contours shown in Figures 3-1 and 3-2, pipe ends at points 104 and 92 will be 6 inches below grade. The grading contours near the pipes should be revised to reflect this.
   Response: The toe of the slope extends to the culvert pipe inlet elevation, which is the low point of the pond. The grade at the toe of the sideslope is the culvert inlet. It is not necessary to revise the contours.
   Action: No action.

5. Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Pg.#: NA Line #: NA Code:
Original General Comment #: 5
Comment: Rip-rap should be installed at the upstream and downstream ends of each pipe that extends between the mitigation pools. In addition, at the end of the pipe at point 91 (see Figure 3-1), rip-rap should be installed from the pipe end of the main channel.
Response: Agree that rip-rap should be installed at the downstream end of each pipe. It does not appear that rip-rap will be needed at the upstream ends of the pipes.
Action: Drawings will be revised to reflect rip-rap as noted above.

6. Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Pg.#: NA Line #: NA Code:
Original General Comment #: 6
Comment: Figure 3-1 indicates that an existing wetland drains into the west end of the mitigation area. This swale should be provided with grade protection in the form of rip-rap or coir matting.
Response: Agree that erosion matting is needed in the specified area.
Action: Figure 3-1 will be revised to identify erosion control matting at the point where the existing wetland drains into Pond 1.

SPECIFIC COMMENTS

7. Commenting Organization: U.S. EPA Commentor: Saric
Section #: 2.2 and 3.1 Pg.#: 2-1 and 3-1 Line #: 29-30 and 6-7 Code:
Original Specific Comment #: 1
Comment: Section 2.2 states that the mitigation area will receive flow from the west drainage area of the wetland on the Northern Woodlot. This section also states that "flow on the east [of the wetland] is through a catch basin and culvert adjacent to the Silos Delivery Road." This statement conflicts with Section 3.1, which states that the two basins on the east will receive flow from the east drainage area of the Northern Woodlot. Neither of these statements is clarified by Figure 2-1, which shows the existing wetland extending through the mitigation area, or by Figures 3-1 and 3-2, which do not show any hydrologic source for the wetland. Both the text and figures of the plan should be revised to correct this inconsistency.
Response: The first three statements identified above are correct, but are not clearly worded in the design. Flow will enter the project area from the existing wetland in the northern woodlot from two points. One point is on the eastern side of the project and the second point is on the western side of the project area. Flow from the eastern point currently enters a catch basin and culvert adjacent to the Silos Delivery Road. Section 2.2 describes current conditions prior to work being done. Section 3.1 describes actions and conditions for the plan. Figure 3-2 shows a change in the topography in the area of the drainages but does not state that these drainages will be blocked to divert water flow to the proposed wetlands. Section 4.4 of the plan specifies the actions to take place to divert the water flow within this area. Figure 2-1 shows the historic footprint of the wetland and does not clearly identify the points where flow enters the project area. Figures 3-1 and 3-2 should identify the eastern and western points discussed above where flow will enter the wetland.
Action: The text of the design will be reworded to more clearly describe the points where flow from the northern woodlot will enter the project area. Figures 2-1, 3-1 and 3-2 will also be revised to clearly show where flow will enter the new wetland system.

8. Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.1 Pg.#: 3-1 Line #: 21-22 Code: NA
Original Specific Comment #: 2

Comment: The text states that "the project area will be seeded with native grass and forb mixture." However, the species to be included in this mixture are not identified in the plan. The text should be revised to include this information.

Response: The species of native grass and forbs to be used in the project should have been included in tables in Appendix B, but were inadvertently omitted.

Action: Tables will be added to Appendix B listing the native grasses and forbs that will be used on the project.

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS ON WETLAND MITIGATION PROJECT PHASE II NATURAL RESOURCE RESTORATION DESIGN PLAN (Draft, Rev. B)

ORIGINAL COMMENTS

9. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: NA Line #: NA Code: C
Original Comment #: 1

Comment: The water control structures indicated are those that are susceptible to plugging by beaver. It is evident that beaver are already in the area, and if not there, would arrive soon. The text states that water control structures similar to those used in the SWU would be used here, and that is our recommendation as well. That design is less likely to be affected by beaver activity.

Response: The water control structures specified will allow for a safer configuration of the wetland berms. The control structures used in the SWU require a recess cut in the berm to allow for flow into the structures. The recess in the berm results in a berm that may be more unstable in the longer term and will need steeper slopes that must be climbed in order to make adjustments in the stop logs. The structures will include a grate or protective cage covering the inlet pipe to prevent beavers or other pests from entering the pipes. It appears that design could be susceptible to clogging if a beaver dam was constructed at the outfall point.

Action: Install water control structures specified with the appropriate pest control around the inlet pipe.

10. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: NA Line #: NA Code: C
Original Comment #: 2

Comment: There is no provision for planting plants that really need to be wet (see Table 3-3) in wet areas. For example, the patches that have buttonbush are either on top of berms, or only come close to wetted areas. Buttonbush has done the best on site where its roots are in saturated areas. Provision should be made for planting these, and other wet loving plants (e.g. winterberry, willow, buttonbush) where they will be wet, perhaps by adding planting patches in the basins themselves.

Response: The patch boundary for six of the patches include area within the normal high water boundary for the wet season. The boundary for patches 2, 3, 4, 7, 8, and 9 extend into the basin or includes the islands that will themselves be below the normal wet season water level.

Action: No change to patch boundaries.

11. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: Line #: C Code:
Original Comment #: 3

Comment: There is no indication of what water level will be maintained in the basins. It is recognized that some changes will be needed as a function of management, but it is also assumed that there is a normal level that will be maintained, but that is not stated. Additionally staff gauges should be added to the basins to monitor water levels and aid in managing the wetland system.

Water elevation is necessary to understand the expected area of open water. Ohio EPA practice is to only count 10% of open water areas toward mitigation acreage.

The mitigation wetland shall have less than 10% of its total area as "unvegetated open water." "Unvegetated open water" is defined as inundated areas where there is no or minimal emergent, rooted aquatic bed (e.g. *Nuphar advena, Nymphaeae odorata, Potamogeton* spp.), or submersed or floating non-rooted aquatic bed (e.g. *Utricularia* spp., *Ceratophyllum* spp. excluding species in the Lemnaceae) vegetation growing in the area of inundation.

Response: The normal water level in Pond 1 will be approximately 573 feet msl. The normal water level in Pond 2 will be 582 and Pond 3 will be 583 feet msl. Water levels are expected to fluctuate seasonally and in some cases water levels may be raised or lowered to facilitate repairs.

Action: Normal water levels will be added to Figures 3-1 and 3-2.

12. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: Line #: C Code:
Original Comment #: 4

Comment: Considering this plan doesn't result in a sufficient total wetland acreage to meet DOE's mitigation requirements, when will the plan for additional mitigation acreage be submitted and where will the mitigation be completed?

Response: The most appropriate location for the additional wetland mitigation projects is being evaluated. There appear to be a number of potential alternatives for achieving the remaining wetland mitigation acreage within future restoration projects. It is anticipated that the next wetland mitigation design plan will be prepared in the Spring of 2004 and submitted to the Agencies and NRTs in Summer 2004.

Action: Continue to evaluate potential options for next wetland mitigation project.

13. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: Line #: C Code:
Original Comment #: 5

Comment: Specification 02930 and Note 12 on the drawing conflict with each other. The specification 02930 specifies coir matting for erosion prone areas, and note 12 specifies C350 erosion matting or similar geosynthetic matting. OEPA prefers the use of coir as in the specification. If C350 is used, it must be covered with some soil and planted into.

Response: Section 02930 requires the use of coir for slopes greater than 3:1 or in concentrated flow areas determined to need protection, but also recognizes the need for different matting as determined by Engineering. DOE will ensure that wetland mitigation requirements under the Clean Water Act are achieved by the completion of Restoration in 2006. DOE will work closely with the Agencies and NRTs to ensure mitigation requirements have been achieved is a sufficient manner.

Action: No change in the material specified.

14. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: Line #: Code: C
Original Comment #: 6

Comment: Plants will be healed in to a mulch pile if they need to be stored more than 24 hours, however there is no location for a mulch pile shown on the drawings. Please show its location, indicate its approximate size, and what surface water controls, if any, will be installed for it.

Response: The area for this project is in close proximity to the NPP. The mulch pile used in the NPP will be used for storage of the planting material and the mulch cover for this project. The current pile will diminish the current pile very little. No additional water control structures will be installed. Mulch will be transported to the planting areas prior to installation by the trailer load and used with individual plantings.

Action: Reference the use of the mulch pile in the NPP for the project.

15. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: Line #: Code: C
Original Comment #: 7
Comment: Although the document indicates that implementation monitoring will only be for one year, Ohio EPA has always maintained a three year minimum is required for implementation monitoring of restoration projects and five year minimum for wetland mitigation projects consistent with agency policy. Ohio EPA will not approve a document with such a short implementation monitoring period.
Response: The one-year monitoring period would only be applicable to the survival of woody vegetation and coverage of seeded grasses. The NRRDP specifies a three-year monitoring period for parameters specific to the function of the wetland.
Action: None required.

16. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: General Pg #: Line #: Code: C
Original Comment #: 8
Comment: The document does not include a seeding list for either upland seeding or wetland seeding. Obviously a seeding list must be included. Hopefully, DOE is using the data from the reference sites and monitoring data to amend prior seeding lists.
Response: The seeding lists for the upland and wetland mixes were inadvertently omitted from the NRRDP.
Action: Add the referenced seed mix tables to Appendix B of the NRRDP.

17. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.0 Pg #: 1-1 Line #: 9-10 Code: C
Original Comment #: 9
Comment: DOE references the NRRP as a 2002 Final document. The other Trustees, Ohio EPA and USFWS, have never received a submittal of this document and obviously have not reviewed it. If DOE insists on continuing to reference it, each reference should specifically state the document has not been reviewed by the Trustees.
Response: While DOE did not formally issue the 2002 version of the NRRP, it was distributed to the NRTs and Stakeholders on an informal basis for review. DOE did formally submit the project scope portion of the 2002 NRRP on March 12, 2003 to the NRTs in effort to reach consensus on this portion of the document. The 2002 Final NRRP is also the version that Fluor Fernald is required to implement per their Closure Contract. Text can be added to the NRRDP to clarify that final approval has not been received on the NRRP.
Action: Add language to the NRRDP that clarifies that the 2002 NRRP has not been reviewed and approved by the Fernald NRTs.

18. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 1.0 Pg #: 1-1 Line #: 20-24 Code: C
Original Comment #: 10
Comment: The October 2001 NRRP states in Section 3.1.7 that: This plan will be used as a sitewide guide to develop invasive plant species management provisions within individual NRRDPs, as appropriate. This NRRDP has one sentence in this section describing an objective as implementing invasive species control measures, and three sentences in section 4.6.3 describing mechanical removal or glyphosate application to A1PIII planting areas. Ohio EPA does not consider this an invasive species management plan and expects a comprehensive invasive species management plan suitable as a sitewide guide as indicated in the NRRP.

Response: DOE agrees that the 2001 NRRP did contain the requirement for an Invasive Species Plan. The requirement to prepare an invasive species management Plan was removed from the NRRP when the 2002 Final version was prepared. DOE is not planning to issue a comprehensive plan on controlling invasive species. Each restoration project will include steps to eliminate and control the amount of invasive species that may compete with planted native vegetation. Methods utilized on past projects (e.g., herbicide application, mechanical removal) will continue to be employed on future projects. DOE would like to discuss OEPA's recognition of the 2001 NRRP and previous references to the 1998 NRRP to clarify which version of the NRRP OEPA recognizes.

Action: None required.

19. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.1 Pg #: 2-1 Line #: 8-10 Code: C
Original Comment #: 11

Comment: The watershed study was performed prior to many modifications made in the topography of this area. Does the current plan include all drainages that were monitored in the 1996 study? The drawing (3-2) appears to show the existing 15" culvert to the east of pond 3 remaining in place and taking flow that could go into pond 3 into the drainage swale. Also, could that drainage swale be diverted into pond 3 to the east of the 15" culvert (e.g. between the twin culverts and the check dam)? Not only would this provide additional flow for the wetland system, it would take flow during rain events and slow their entry to Paddys Run by running them through a wetland system, which is one of the key functions of a wetland system.

Response: The current design does incorporate all of the drainage channels monitored in the 1996 Watershed Study. Flow out of the existing wetland in the Northern Woodlot runs through two channels to the South. Water from both channels will enter the new wetland after it is constructed. After the 1996 study was complete, a catch basin and two culverts were constructed to collect water from the eastern channel. The channel was not modified during the construction of the basin and the culvert. The design does not include the culverts running east to west carrying flow from the rail yard area. This option was explored and the differences in elevation did not make the use of this water possible. It was further determined that the water would not be needed to support the new wetland. On Page 4-2, Line 33, it states that the existing catch basin and two culverts crossing the road will be taken out. Figure 3-2 does not show the removal of the basin and culverts, but does show the proposed change in elevations within the area to create a berm that will divert flow to the wetland. This is still the plan and all water will enter Pond #3 through the two new culverts that will be installed parallel to the road.

Action: The design drawings will be revised to clearly show the removal of the catch basin and two culverts crossing the road.

20. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Section 3.1 Pg. #: 3-1 Line #: 24-25 Code: C
Original Comment #: 12

Comment: The text suggests that plugs will be used to jumpstart vegetation of the basins. However, according to the plan, planting will not occur for a full year after grading. Such an extended delay will likely result in less desirable species colonizing the basins, and present a maintenance problem. Plugging should occur in the Spring of 2004 to minimize competition with invasive species and to truly provide a jumpstart to the project.

Response: Agree.

Action: The specified plugs will be ordered and installed in the Spring of 2004.

21. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Section 3.1 Pg. #: 3-1 Line #: 23-24 Code: C
Original Comment #: 13
Comment: The success of dormant cuttings in the radium hotspot would suggest that they might be useful at other locations within the ponds to help establish woody vegetation. Dormant cuttings should be added to toe of slope on islands and select other areas to improve habitat and vegetative cover. Some cuttings such as buttonbush could be placed directly in areas expected to contain standing water.
Response: Agree.
Action: Dormant cuttings will be installed in select areas to improve habitat and cover. Islands indicated on the plans are included in the planting patches. The islands will be planted with wet tolerant shrub species. Efforts will be made to install dormant cuttings in the Fall of 2003.

22. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-1 Pg. #: Line #: Code: C
Original Comment #: 14
Comment: The table significantly reduces the diversity of cuttings listed in specification 02930 for use in live cutting areas. Additional justification for the reduction should be provided or include additional diversity in the cuttings used on the project.
Response: The species proposed are the same as the species used in the NPP.
Action: None required.

23. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Table 3-2 Pg. #: Line #: Code: C
Original Comment #: 15
Comment: Spotted joe pye weed has typically been included in site restoration plugging. It should be added back into the list. Additionally, Ohio EPA recommends the addition of pickerel weed as a plant that would help colonize standing water areas thus reducing the amount of open water.
Response: The scientific name listed in the table is for Spotted Joe-Pye Weed, which is intended. With the correction to the common name, the list is the same as listed in the NPP. DOE feels that Pickerelweed may be aggressive in nature and reduce the diversity in the wetland by out-competing other native species. The specific species of Pickerelweed is not identified in the comment. Monochoria spp. is on the Federal Noxious Weed list and Pontederia spp. is on the Noxious Weed list in specific states. In addition, Pickerelweed is a favored food source of the Canada Goose. DOE does not plan to use the species in the vegetation of wetlands at the FCP.
Action: Make correction to the table.

24. Commenting Organization: Ohio EPA Commentor: DSW
Section #: Table 3-2 Pg #: 3-2 Line # NA Code: E
Original Comment #: 16
Comment: Boneset is *Eupatorium* rather than *Euratorium*
Response: Common name should be revised to Spotted Joe-Pye Weed.
Action: Revise text of Table 3-2 as noted.

25. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Figure 3-1 Pg. #: Line #: Code: C
Original Comment #: 17
Comment: Though not noted on the drawings, the slopes around the discharge point from Pond 1 will obviously require coir matting consistent with Specification 02930.
Response: Agree.
Action: The design drawings will be revised to show coir matting in the specified location.

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26. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Figure 3-1 & 3-2 Pg. #: Line #: Code: C
Original Comment #: 18
Comment: As shown the islands are not designed consistent with the cross section 3 requirements. Specifically heights are greater than 2 feet. Island heights should be installed consistent with the cross section 3 requirement. Additional islands would be beneficial. These islands should have less slope and be submerged by 6" under design water levels. They would aid in reducing open water areas.
Response: Agree
Action: Top of island elevations are shown at 6 inches below the normal pond elevation as shown on the drawings. The islands meet the 2 foot maximum height requirement.

27. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Figure 3-2 Pg #: NA Line #: NA Code: C
Original Comment #: 19
Comment: The twin 18" pipes should be removed. These are described as being installed to provide access to the other side, however their installation limits the potential size of this basin. There is access to the other side through existing roadways from the north and east. It would be short sighted to reduce the potential size of the mitigated wetlands by providing this access when existing access, although slightly less convenient, already exists. Additionally the culverts present a long-term maintenance requirements that would seem unnecessary.
Response: This point was chosen for access to the Northern Woodlot due to the anticipated volume of traffic required for planting activities. Unimproved roadways are available to the north and east as indicated in the comment, but these roadways become very wet much of the year. The concern is that the equipment required to move plant stock to the Northern Woodlot planting area and the traffic required to support planting will impact the existing roadways significantly. The culverts can be removed after planting activities are complete in the Fall 2004 or Spring 2005 and access to the planting area is no longer required.
Action: Revise NRRDP and design drawings to reflect the removal of the culverts supplying water to Pond 1 at the completion of planting activities.

28. Commenting Organization: Ohio EPA Commentor: DSW
Section #: Fig 3-4 Pg #: NA Line #: NA Code: C
Original Comment #: 20
Comment: The outline of the northwesterly upland prairie area does not seem to coincide with the open area shown on the most recent aerial photograph. Open area appears to continue along the north fence line between the two upland prairie areas shown on figure 3-4.
Response: The areas delineated in the drawings are considered old field and include honeysuckle and other woody species that are overgrown with grapevines. These areas would be sprayed to kill the vegetation, the woody species removed, and the area seeded to convert it to prairie.
Action: Change text as noted to more clearly identify intent within these areas.

29. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.2 Pg #: 4-1 Line #: 14-18 Code: C
Original Comment #: 21
Comment: This describes prairie establishment already performed along the eastern boundary in 2002. No indication of success/failure, issue or problems are given. Did this work? Since there is no indication that Roundup was applied, it is expected that the planting would only have minimal impact on establishing seeded grasses and forbs. What follow-up is planned?

Response: Success has not been determined at this time; it is too early to make any determinations. The area has some native species coming up but there has been no conversion towards prairie. There has been some application of broadleaf control within the area. Any move towards a prairie would be more evident in year 2 or 3 or when a prescribed burn could be used to aid in the conversion.

Action: None required.

30. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.4 Pg #: 4-2 Line #: 25 Code: C
Original Comment #: 22

Comment: The maximum slope should be 5:1 with shallower slopes being preferred. The wording here seems to indicate steeper than 5:1 slopes. Slopes of 5:1 to 10:1 with less steep slopes preferred should be specified.

Response: The wording on Page 4-2, Line 25 states that the slopes will be at least 5:1 implying that the slopes may be greater (e.g., 6:1, 7:1). The intent is to have no slopes steeper than 5:1 in the wetland as marked on Figures 3-1 and 3-2. The text in the Final NRRDP will be revised to clarify this point. The project was designed to achieve 5:1 slopes, while maximizing wetland acreage and balancing cut/fill to avoid the import or export of soil. The footprint of the project is restricted by site infrastructure and the ability to reengineer the project to achieve 10:1 or 15:1 slopes will reduce storage capacity and wetland acreage. The construction of 10:1 or 15:1 slopes may be very feasible on future projects and can be evaluated during future designs.

Action: None Required.

31. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.4 Pg #: 4-2 Line #: 33-34 Code: C
Original Comment #: 23

Comment: Removal of the catch basin and culverts is not clear on the drawings.

Response: Agree.

Action: The catch basin and culverts that are to be removed east of Pond 1 will be more clearly marked on the drawings.

32. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4 Pg #: 4-3 Line #: 6-7 Code: C
Original Comment #: 24

Comment: There is a large stockpile of topsoil on-site. Topsoil for soil amendment or top coating is readily available and should be utilized.

Response: Topsoil contained in the referenced stockpile has been designated for the OSDF cap construction. After further evaluation, it does not appear that the quantity needed for the A6PI project will make a significant difference in construction of the cap even if some topsoil needs to be purchased late in the project. Other remediation areas may generate additional quantities of topsoil that are not being considered at this time. Topsoil from the referenced stockpile will be hauled from the stockpile and used for construction of the wetland.

Action: The NRRDP will be revised to indicate that topsoil will be taken from the existing topsoil stockpile and used during construction of the A6PI wetland.

33. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.4 Pg #: 4-3 Line #: 6-10 Code: DSW
Original Comment #: 25

Comment: Because the application of amendment has been shown to be critical to the success of planting, more detail is needed for the amendment application, e.g. which amendment is preferred and why, what is the application rate for that amendment and why, what quality

control will be performed to assure that a minimum amount of the amendment is applied in all sections, etc.

Response: Soil in the project area will be amended with topsoil or compost acquired from an off-site vendor. Soil amendment will be applied through mechanical means in a manner similar to that used during the Southern Waste Unit Restoration Project. Soil amendment will result in a layer of topsoil or appropriately aged compost covering the surface of the project area. Soil amendment will not be required in areas where standing pools of water is expected.

Action: Additional text will be added to the design describing the soil amendment process.

34. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4 Pg #: 4-3 Line #: 11-14 Code: C
Original Comment #: 26

Comment: This section refers to a subcontractor to complete seeding separate of the rest of the project. No additional detail is provided. Please clarify who the subcontractor is and what controls will be in place.

Response: All seeding work will be performed by Fluor Fernald labor. A seeding subcontract was being considered at the time in which the NRRDP was submitted, but since then the decision has been made to carry out all seeding using internal resources.

Action: Text in the NRRDP will be revised to reflect the correct resources that will perform seeding work.

35. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.4 Pg #: 4-3 Line #: 11-14 Code: C
Original Comment #: 27

Comment: This section refers to a "Grading Plan" though no such document is found in the NRRDP. The grading plan must be provided for review along with the NRRDP. The grading plan should include the use of matting on the berms of the ponds as DOE has had problems establishing vegetation on the slopes of basins historically. Use of matting in the SWU has greatly aided revegetation.

Response: There is no Grading Plan other then that contained in the NRRDP.

Action: The wording in the text will be revised to read "this Grading Plan."

36. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.6.1 Pg #: 4-5 Line #: Code: C
Original Comment #: 28

Comment: Plant watering requirements described within this section are inadequate and inconsistent with the Specification 02940 provided with the NRRDP. The number of inconsistencies between specifications and narrative portions of the document seriously effect the Plan's credibility. Watering must be more timely and effective than that provided in this section. Revise the section consistent with the specification.

Response: Literature indicates that watering at the time of planting is essential to the establishment of the plant. Review of the plants from the initial plantings in NPP indicated that plants that did not receive water at the time of planting (even when it was raining) were not as successful. For this reason, the text was to be a clarification of the need for immediate watering and not as a disregard for watering requirements in the specification.

Action: Modify the text in Section 02940 to more clearly identify watering requirements.

37. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.6.2 Pg #: 4-6 Line #: Code: C
Original Comment #: 29

Comment: It is highly unlikely the deer control measures presented here will adequately protect plants. The lack of success of these measures has been demonstrated on numerous projects to date. The only truly effective control to date has been exclusion. Considering

this, DOE should revise the plan to utilize fencing similar to that used in the SWU and NPP restorations along with clumped planting of shrubs.

Response: DOE disagrees that deer management efforts used to date have not shown success. DOE believes that continued use of current deer control measures are adequate. The use of clumped shrubs and fencing similar to that used in the SWU and the NPP will be utilized in the Wetland Mitigation Phase II Project.

Action: Text will be added to Section 4.6.2 to indicate the use of clumped shrubs and fencing.

38. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 4.6.3 Pg #: 4-6 Line #: 13-19 Code: C
Original Comment #: 30

Comment: This section is inadequate. See comment regarding invasive species management plan above. Include Typha spp and Phragmites spp in the list of invasive species.

Response: Typha and Phragmites will be added to the list of invasive species that will require management.

Action: Revised text as noted.

39. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 4.7 Pg #: 4-6 Line #: Code: C
Original Comment #: 31

Comment: As stated in previous comments on this and other documents, the proposed monitoring period is unacceptable. Additionally, the monitoring section fails to provide specific objectives for the mitigation. The monitoring section should include piezometers to monitor subsurface water levels, photo documentation points, and other monitoring activities similar to the A1P1 wetland mitigation plan.

Response: See response to Comment #15 regarding monitoring periods. The inclusion of photo documentation is appropriate and necessary for inclusion in the NRRDP. The use of piezometers has not proven to be necessary to determine the function of the A1PI wetland system. Surface water level measurements, coupled with an evaluation of soil conditions, will provide adequate data to demonstrate the function of the area as a wetland system.

Action: Add the use of photo documentation to the NRRDP.

40. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Specifications Pg #: Line #: Code: C
Original Comment #: 32

Comment: The interval for watering trees is given in the specification 02940 (section 3.7), but none is given for watering seeded areas. Please include watering specifications for all planted/seeded areas.

Response: Areas planted within the seeding window will generally have sufficient water to germinate and grow without supplemental watering. Only during the periods of draught would these areas need additional water. Agree that more information could be added to address those periods. One thing to note is that there was no supplemental watering in the NPP during the 2002 draught and it still successfully germinated and grew. Many of the species identified from the seed mix had not been seen in other areas as within the NPP.

Action: Consider a modification of the Section 02930 to include additional information on watering.